

## **Chemical treatment evaluation of tensile properties for single kenaf fiber**

### **ABSTRACT**

The attractions to kenaf fiber as reinforcement in polymer composite are getting wider. However, the hydrophilic in nature is one of the affecting factors to their properties. Treatment to the fiber using sodium hydroxide (NaOH) has significantly proven to improve the drawback. This paper presents the mechanical properties of untreated and treated of single. Initially, kenaf fibers were treated with sodium hydroxide with varies of concentration, soaking time and drying period of conditions. Then, each of kenaf fibers is mounted on a cardboard paper frame. The single fiber tests are performed in accordance with ASTM D3379-89. Prior to testing, the frame sides were carefully cut in the middle. It has been shown that treated fibers with 6% of NaOH significantly offered an outstanding performance than the untreated.

**Keyword:** Tensile properties; Kenaf; Alkaline treatment; Sodium hydroxide